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Editorial and Business Office: 1782 N. Orange Dr., Hollywood 28, Calif.
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ON THE COVER

TEST SHOTS of spectacular underwater scene filmed by John Seitz, A.S.C., for Paramount's "Sunset Boulevard," hold the attention of cast and crew on the set. Examining film strips is director Billy Wilder. Beside him is Gloria Swanson, femme star of picture. Interested onlookers are (left to right) Eric Von Stroheim, director of photography Seitz, William Holden, operating cameraman Otto Pierce, and assistant cameraman Harlow Stengle.—*Photo by G. E. Richardson.*

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AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes non-resident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

The Society meets regularly once a month at its clubhouse at 1782 North Orange Drive, in the heart of Hollywood. On November 1, 1920, the Society established its monthly publication "American Cinematographer" which it continues to sponsor and which is now circulated in 62 countries throughout the world.

Dominant aims of the Society are to bring into close confederation and cooperation all leaders in the cinematographic art and science and to strive for pre-eminence in artistic perfection and scientific knowledge of the art.

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MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931

Keeping up with PHOTOGRAPHY

★ ★

A NEW FILTER TECHNIQUE has brought about marked improvement in the television images transmitted from motion picture films. The new process, developed by Eastman Kodak Company, renders more faithful reproduction of picture contrast and brightness combined. The new Kodak Technique uses a filter of infrared absorbing glass and an interference filter. These filters, placed between the projection light and film, take out the infrared and the red wave lengths of the visible spectrum. The bluish-green light is not absorbed by the filters and is transmitted to the photosensitive pick-up tube. The net result is better television picture tone reproduction and greater ease of operation of TV-film camera equipment.

Laboratory tests indicate the new filters will be very significant in black-and white televising of programs which are available only on color films. At present, only the infrared absorbing filter can be used in the projection beam when televising color films in color, but this results in a marked improvement in the picture quality.

•

MOST PHOTOGRAPHERS, at one time or another, have thought how nice it would be if a given film had just one speed number, applicable for daylight or tungsten use. Photo Research Corporation, of Burbank, Calif., has found an answer to the dilemma, not by introducing a new, all-purpose film, but by developing a new photo-electric cell for exposure meters to replace present cells and which will enable photographers to use the same film number when shooting indoors or out.

Photo Research Corporation says that ordinary light meter cells, such as have been made for the past 20 years, have not kept up with the changes in the sensitivity of films. Daylight and tungsten light, of course, are of two quite different colors. Daylight is substantially white, tungsten is more yellow. Daylight has, roughly speaking, about equal portions of red, green and blue. Tungsten has a lot of red, a medium amount of green, and not much blue. Since panchromatic film responds somewhat differently to these primary colors, a different amount of light energy will be required with yellow light than with white. There is also the ultra-violet light to be considered. Under some conditions, there is a great deal of this in sunlight. Most photo cells are quite sensitive to UV down to wave lengths so short they can't be recorded by the camera lens, thus making for further discrepancies.

The new replacement cells have their sensitivity to the invisible rays cut down to about the same level as the response of pan film in a normal camera. Installed in any exposure meter, the new cell will render light readings indoors and out, differing by just the amount that the response of pan film differs. The tungsten speed number is eliminated and the outdoor index will be correct, indoors or out.

•

HIGH SPEED PHOTOGRAPHY has come to the aid of U.S. Navy research scientists working on torpedo design. The scientists are using high-speed motion picture cameras set up on torpedo ranges at Morris Dam reservoir in Southern California to record accurately the behavior of projectiles being tested. A variable-angle pneumatic launcher fires projectiles into the water, and as many as seven cameras record their course.

Special motion picture studies of the impact of missles with the water are made with Eastman High-Speed cameras set at speeds as high as 1,200 frames per second. Study of the results provides valuable data for improving torpedo design.

A 35mm. motion picture camera and a specially constructed "flare" camera to record the projectile's speed are mounted in a camera car which travels on a standard gauge railway close to the water's edge so that cameras may be readily placed in correct position for photographing a launching. Three 70mm. motion picture cameras protected by concrete sheds photograph side views. Other cameras record the torpedo course from behind the launching platform and from an aerial cable suspended above the range. Standard searchlights are used for illumination when sunlight is insufficient.

•

A SPECIAL NEW COLOR FILM which can be used to make duplicate color transparencies equivalent to the finest original color photos has been developed by Eastman Kodak Company. Known as Ektacolor Print Film, new product was first produced specifically for making duplicate color transparencies of top quality directly from color negatives. Such duplicates are said to equal in quality original full-color pictures exposed directly in the camera on either Kodachrome or Ektachrome film. Any photographer who

(Continued on Page 329)

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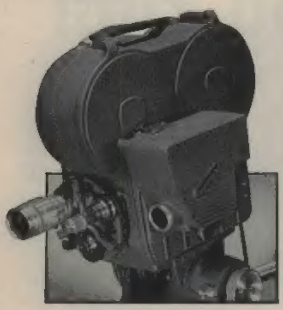

...why the Auricon-Pro is the only 16 mm. sound-on-film Camera made, regardless of price, which operates so silently it can be used within 10 inches of a microphone.

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MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931

Hollywood Bulletin Board

COLLEGE PROFESSOR for a day was William Daniels, A.S.C., when he recently lectured students of University of Southern California on modern techniques of cinematography. Daniels is one of several members of American Society of Cinematographers who have contributed from their vast store of cinematic knowledge in the lecture series at the University.—(Bob Willoughby photo).

CHARLES CLARKE'S superlative cinematography of such 20th Century-Fox pictures as "The Big Lift," "Slattery's Hurricane," "Sand," and "Green Grass Of Wyoming" have earned for him another two-year contract as director of photography with that studio. Next assignment for this former A.S.C. president will take him to Australia to film Fox's "Kangaroo."

•

BENJAMIN KLINE, A.S.C., one of the busiest directors of photography in the television film field, last month completed shooting his 85th TV film at the Hal Roach studio in Culver City.

•

RAY FERNSTROM, A.S.C., having early chosen Ansco Color photography as his forté, is currently shooting two productions in that medium for Kaiser-Frazer Motors at the Sutherland Studios.

•

WALTER STRENGE, A.S.C., will be a familiar face at Republic Studios for next several months, having recently signed to direct the photography on a lengthy serial there.

•

CHARLES ROSHER, A.S.C., won the American Society of Cinematographers' "Picture Of The Month Award" for June for his photography of M-G-M's "Annie Get Your Gun." Rosher is first cinematographer to win the award twice since the Society inaugurated the awards first of the year. He also won the award in January for photography of "Red Danube." Picture Of The Month selections are voted by the ASC membership from among films released in the Los Angeles area each month. The monthly winners receive a plaque commemorating the award.

•

CAPT. LLOYD W. KNECHTEL, A.S.C., while taking two weeks summer training with the "Black Cat Division" at Camp Cooke, Calif., last month, fell from a moving tank, breaking his back. Knechtel is veteran special effects cinematographer, recently with Samuel Goldwyn Studio, Hollywood.

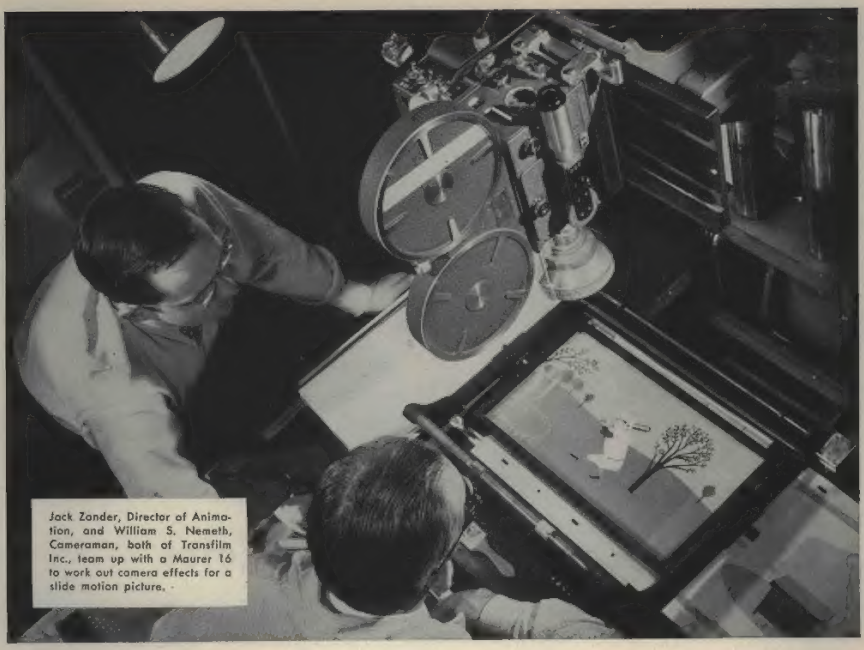
•

CIVIL SERVICE examinations for motion picture, still and process photographers and motion picture projectionists have been announced by the government. Still and motion picture cameraman positions pay from $2,650 to $3,825 per year to start; projectionists from $2,650 to $3,825. Job locales are in various Federal agencies in Washington, D. C. and vicinity.

To qualify, applicants must pass a written test and have had from 1 to 4 years experience. Applicants must be citizens of U. S. and between 18 and 62 years of age.

Full information and application forms may be obtained from most post offices, or from U. S. Civil Service Commission, Washington 25, D. C. Filing must be done before September 12, 1950.

HUMBERTO CORELL, (center) Director of Photography for Trans-America Films, Buenos Aires, Argentina, recently in Hollywood on a mission for his studio, visits with John Arnold (left) A.S.C., camera department head at M-G-M, and Charles Rosher, A.S.C., Director of Photography at same studio. Corell is preparing for production of first Ansco Color feature film to be made in Argentina.



Jack Zander, Director of Animation, and William S. Nemeth, Cameraman, both of Transfilm Inc., team up with a Maurer 16 to work out camera effects for a slide motion picture.

Where hair-line ACCURACY counts..

At Transfilm Incorporated, where animated motion pictures and slide films are produced in volume, hair-line *accuracy* is of utmost importance. Inevitably, this leading commercial film company selected Maurer as the 16 mm. camera that best supplies this vital quality.

In Maurer **VERSATILITY** they found *accurate* registration of each individual frame, along with precise high-power focusing and large clear direct-through-the-lens viewing.

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And in Maurer **EXCLUSIVE FEATURES,** such as the 235° dissolving shutter, they found fast *accurate* changes of exposure while shooting.

Because it meets so many varied needs, more and more producers like Transfilm are turning to the Maurer 16 mm. as the ideal camera for every phase of professional motion picture production.

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The Maurer 16 mm., designed specifically for professional use, is equipped with precision high-power focusing and the finest view-finder made. Standard equipment includes: 235° dissolving shutter, automatic fade control, view-finder, sunshade and filter holder, one 400 foot gear-driven film magazine, a 60-cycle 115-volt synchronous motor, one 8-frame handcrank, power cable and a lightweight carrying case.

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BECAUSE so much of the story of "Saddle Tramp" revolves around four orphaned boys, camera viewpoint is kept down to "boy height." This meant inclusion of ceilings in most of the interiors.

THE FILL light in exteriors is never over-emphasized, and as a result the photography has a more natural aspect.

Capturing Realism In Color

There's something different in the photography of "Saddle Tramp" that marks it a standout job of Technicolor filming.

By ARTHUR ROWAN

UNIVERSAL-INTERNATIONAL PICTURES seems to have an uncanny knack for taking an average story, filming it in Technicolor instead of black-and-white, and turning it into smart screen entertainment. The recently completed "Saddle Tramp," starring Joel McCrea and Wanda Hendrix, is a case in point. With due respect to the script writer, it must be said that the photography "made" this picture. Hugo Fregonese, who directed it, sought out Charles P. Boyle, A.S.C., after its initial preview and said, "Charlie, *you* are the real star of this picture." Boyle directed the Technicolor photography. In less expert hands, "Saddle Tramp" might have been just another western.

Chas. P. Boyle, A.S.C.

Fine details in scenes staged in full shade with subtle backlighting aiding the pictorial composition; the genuine look of the rainstorm scenes; the composition of interiors achieved with a consistently low camera angle on sets that for the most part have ceilings, and the compositional deftness evident by careful framing and camera placement are some of the cinematographic highlights which so unobtrusively impress your mind as the picture unfolds, and which your memory invariably brings back as you reflect upon the picture afterward.

"Saddle Tramp" concerns the experiences of McCrea who, until a few minutes after the picture opens, is a carefree cowpoke with no family ties and no desire to "get tied down." But fate takes a hand when a widower friend dies suddenly while McCrea is visiting with him, and leaves a ready-made family of four small boys for him to take care of. McCrea decides to continue his wanderings with the kids in tow, later picks up a runaway girl, Wanda Hendrix. Now with the responsibility of feeding five youngsters, McCrea is forced to find a job, goes to work for a tough old rancher who hates kids. McCrea is obliged to hide them out in a nearby forest. Nightly he brings them food pilfered from the ranch house kitchen.

The rancher and a neighbor have been feuding over lost cattle. Each accuses the other of thefts. McCrea, aided by Wanda and the boys, discover crooked employees of both ranchers are doing the stealing. McCrea ultimately brings the crooks to justice, but not before engaging in one of the best photographed hand to hand battles seen in a picture in many moons.

The technique director of photography Boyle employed in filming this picture reflects a superior craftsmanship developed during twelve years spent with Technicolor Motion Picture Corporation as cinematographer. Opening scenes of "Saddle Tramp" are, for the most part, exteriors; but even here there is artistry in the way Boyle places his camera to achieve the two-fold purpose of producing a scene pictorially interesting and at the same time detracting not at all from the players nor the action. Scenes in color easily can have a braking effect on the story if bold colors predominate to draw attention to them. Boyle has countered

(Continued on Page 322)

New "All-Direction" Baby Camera-Dolly

Newest mobile camera support makes possible intricate follow and dolly shots, proves timesaver in making setups.

By LEE GARMES, A.S.C.

DESIGNER-builder, Steve Krilanovich, demonstrates important feature of his Dual Steering Camera Dolly which permits operator to sit in well, behind camera. When fully retracted, base of camera is but 15 inches from floor.

A VERSATILE new vehicle for motion picture cameras that embodies many new refinements tending toward greater mobility, flexibility and light weight is the Dual Steering Camera Dolly designed and constructed by Steve Krilanovich of Hollywood. Its odd name derives from the fact it affords two distinct travel patterns for mobile camera shots: it permits the dolly to travel in straight lines, at the same time permitting abrupt angular turns, or in circles of varying diameters. Its four sets of dual-wheels are swivel mounted and may be interlocked for any direction of travel; both the front and rear pairs turn on axle spindles the same as the front wheels of an automobile. A two-position gear shift sets the wheels for the desired travel pattern, or the dolly may simply be guided through conventional steering as with other camera dollies.

While this dual steering is just one of the dolly's many features, it is perhaps the most important for the director of photography. At Columbia Pictures' studios where I have been using this dolly exclusively in filming interiors for "The Hero," technicians there have coined a new name for it—"The Crab Dolly"—because of its ability to instantly shift direction of travel. My favorite term for it is "the all-angle dolly."

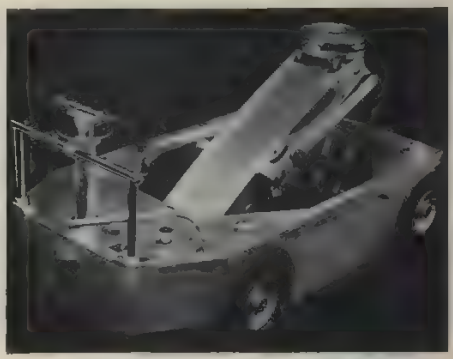
Constructed almost entirely of dural, the dolly weighs 375 pounds, is 32 inches in width and 5 feet long. Sideboard extensions permit widening the deck an additional 20 inches, allowing more room for movement of camera technicians when they must travel with the camera in addition to the operator.

The retractable support on which the camera rests is hydraulically operated and may be raised from the minimum level of 15 inches from floor to a maximum height of 52 inches. This is exclusive of hi-hat, pan head or other camera attachments, of course.

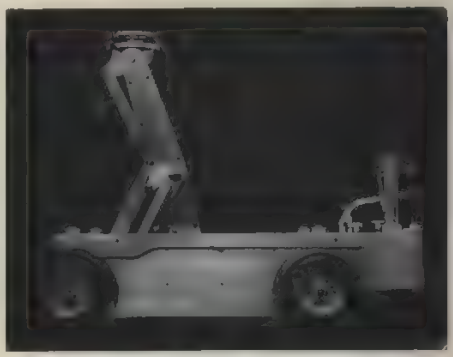
With the camera mounted low, the operator may sit in the well of the dolly, immediately behind the camera—perhaps the only dolly that permits this. The pivot of the retractable support is only four inches above floor level. Another important feature is that, as the support is elevated or lowered, the camera remains in the same vertical plane. At the present time the hydraulic elevator is manually operated, but is to be motorized at an early date to afford smooth "boom shot" action, both up and down.

Because of its light weight and low center of gravity, this baby dolly easily may be moved about the sound stage by one

(Continued on Page 321)



BUSINESS-end of dolly, showing steering arm, gear shift, directional adjustments, and hydraulic lever for raising the retractable camera support. Only 32 inches wide, dolly will negotiate the average doorway on sets



CAMERA SUPPORT fully raised, affording a camera base elevation of 52 inches. As camera is raised or lowered, it remains in the same vertical plane. Over 65 ball bearings insure velvet smooth operation and travel of this newest camera dolly.

IMPROVED laboratory technique for the production of 35mm prints from 16mm color originals enables documentary, newsreel and short subjects photographers to secure interesting footage in near-inaccessible places, using compact and light-weight 16mm. cameras.

Shooting 16mm. Color For Blow-up To 35mm.

Perfect exposure, sharp focus and absence of film surface blemishes essential for top quality blow-ups.

By CHARLES LORING

THE IDEA OF enlarging or "blowing up" 16mm. color original film to 35mm. for showing on standard theatre screens, is not new. For some years now the major studios have been selecting certain 16mm subjects filmed in Kodachrome making triple separation negative 35mm. blow-ups of them, and printing them in Technicolor.

During World War II, films shot by the armed forces (including such masterpieces as "Battle of Midway" and "Fighting Lady") were very satisfactorily handled in this way for theatrical release and since then many short subjects have been presented in the same manner.

In the early experiments involving blow-up of 16mm. color original to 35mm., it was found that the results were sometimes slightly fuzzy and over-contrasty. However, the perfection of new optical printing systems and new film stocks have just about eliminated these disadvantages. Even so, up until recently the process has been a fairly costly one and the Technicolor labs so busy that it was difficult for the smaller producers to schedule blow-up service. With the introduction of several new processes, however, this service is now being made practical for many independent producers with limited budgets and demands for just a few 35mm. release prints.

There are two basic methods by which 16mm. blow-ups are made. These are called *direct printing* and *color separation printing*. In the first case a direct enlargement of each frame is made in an optical printer onto 35mm. color stock, such as Ansco Color. In the second case, color separation negatives (either 2 or 3 color) are made from the 16mm. original, also by means of blow-up in the optical printer — and these are printed together to form the composite color print.

The advantage of the direct printing method is that it is faster and quite a bit less expensive when only a few 35mm. prints are needed. On the other hand, because it is a *monopack* process with all the color layers contained on one film base, it is relatively more difficult for the printing technician to exercise full control over the color quality. For example, if the original tends toward the blue, the technician can correct by printing through filters of a warmer tone. This will correct the cool tones, rightly enough, but it will make the warm tones even warmer — sometimes to an undesirable degree.

The color separation method, on the other hand, is somewhat more expensive when only a few prints are needed, due to the relatively high initial cost of making the color separation negatives. But in quantity printing, the process actually becomes less expensive per print than the direct method.

The color separation process offers the technician a much greater degree of control over color rendition due to the fact that there are 2 or 3 separate negatives involved. Thus, if there is a tendency toward the blue, the technician can correct by toning down the blue control negative without changing the other color values in the scene. Both the Technicolor process and the new DuPont process offer this type of negatives — whereas, in the direct blow-up method, the original 16mm. footage must be used in making each print — thus creating a certain risk to the original.

Which process to use in blow-up work depends upon the budget, technical requirements and number of prints in 35mm. required by the individual producer. According to Hal Scheib (head of Cinema Research Corp., and one of Hollywood's top technical experts in color and optical printing), the first question asked of a producer is how many prints are required. When this is established a budget for blow-up prints can be set, and the method of printing that will fit comfortably into that budget can be determined.

"We don't favor any one process," Scheib points out, "but we are interested in finding the one that will best fit the client's needs, so that we can furnish him with that particular service. Blow-up has now reached such a stage of perfection that only skilled technicians can tell a good one from a straight 35mm. print. It is now possible for the independent producer on a limited budget to provide himself with 35mm color release prints while taking advantage of the portability of 16mm. equipment and the reduced production cost of shooting with narrow gauge film."

Scheib points out that while it is possible for a blow-up actually to be better

(Continued on Page 325)

Old Master, New Tricks

— a combination that spelled success for photography of 'Sunset Boulevard.'

By HERB LIGHTMAN

IN THE MAKE-BELIEVE world of sunshine and celluloid called Hollywood, the terms "stupendous" and "colossal" have been over-used to the point of becoming synonymous with "fair" and "mediocre." This being the case, when a really *great* motion picture does appear, it is difficult to find fresh superlatives with which to adequately describe it. If such words could be found, however, they would most certainly apply to Paramount's masterful production, "Sunset Boulevard."

The picture tells the story of a woman, an ageing former star of the silent screen, who refuses to accept the fact that the parade of life has passed her by. But more than that, it is the story of one sharp facet of a fabulous industry — a faithful (it somewhat *special*) slice of life out of a glamorous pattern of heartbreak well known to those who work in the world of the motion picture.

To capture the subtleties of this story and to recreate in a modern context the ghostly glories of a gilded era now past, Paramount assembled a rare assortment of craftsmen. The writing producing, directing team of Charles Brackett and Billy Wilder chalks "Sunset Boulevard" up as one more triumph in a long series of artistic and box-office successes. Gloria Swanson emerges from semi-retirement to score in a performance of magnificent stature — one that will undoubtedly add a gold "Oscar" to her mantlepiece. But credit for this outstanding film belongs equally to the men behind the scenes

IN THIS SCENE "Sunset Boulevard" takes the audience behind the scenes of a typical Hollywood sound stage, shows camera crews at work. Director of photography John Seitz's camera is in foreground.

— to Hans Dreier and John Meehan for their inspired art direction, to Franz Waxman for his provocative musical score, and especially to John F. Seitz, A.S.C., for his brilliant job of photography.

It is fitting that the camera should play an important role in the telling of the "Sunset Boulevard" story — for here is a plot conceived expressly for the screen — not adapted from the latest best-seller or Broadway stage hit. It is a purely

(Continued on Page 318)

THE QUEST for realism in "Sunset Boulevard" led to filming many sequences in actual locales. Here a Hollywood mansion and swimming pool is used instead of a set on the studio lot. Note reflectors employed instead of studio lamps to supply fill light.

FRAME BLOWUP showing extraordinary underwater shot of discovery of victim's body lying on surface of swimming pool. Effect is that of looking up through the water from bottom of pool — made by placing large mirror on pool floor and filming reflection.

FIG. 1—The new Spectra 3-Color Meter which measures the proportionate amounts of all three primary colors of light.

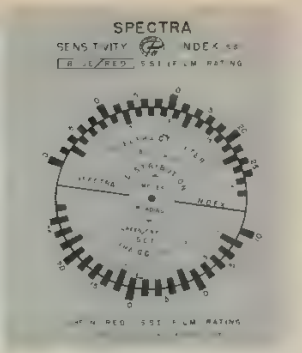


FIG. 2—Computer used in conjunction with new 3-Color Meter which indicates directly the filter to use for prevailing light.

New Three-Color Meter For Evaluating Illuminant Quality

New instrument measures both the Blue-Red and Green-Red ratios of any given light source.

By LARS MOEN
Photo Research Corporation

EVER SINCE the advent of color photography, photographers have sought to cope with the problem of color balance between the sensitized material employed and the light source to which it was exposed in making a picture. Even before the days of integral tripack film (commonly referred to as 'monopack'), one shot cameras were painstakenly balanced either for a particular artificial light source or for daylight; and even the earliest practitioners discovered to their sorrow that daylight was an illuminant of widely variable color.

When an illuminant is reasonably constant in color—for example, photo floods, flashbulbs and other photo lamps—color film can be balanced to it by the manufacturer, or at least he can furnish correction filters which will consistently bring the film and illuminant into a balanced relation. Incandescent light is variable, but it can be held within fair tolerances.

Daylight, however, is quite another story. The amounts of red, green and blue in daylight change with the hour, the season, the altitude and latitude, with the state of the sky and the weather, with atmospheric contamination — in a word, with so many variables that no table and no computer could possibly cope with them.

In a confused situation such as this, no one will dispute the need for two specific things: an adequate instrument for the measurement of the spectral energy distribution or color balance of any illuminant, and a convenient unit or index number in which the reading of that instrument can be correctly expressed.

Photo Research Corporation of Burbank, California, among the first to apply research in this direction and whose Spectra color temperature meter is well known among cinematographers everywhere has, as a result of continuing research, introduced a new model of the Spectra, to be known as the *Spectra Three Color Meter*. Designed for the accurate determination of the color of a light source one of its major applications is in the field of color cinematography where the illuminant must be of the color to which the film has been balanced.

Readings of the original Spectra were based on the Kelvin color temperature of the light source in question. The new Spectra Three-Color Meter has two notable changes: the instrument measures the proportionate amounts of all three of the primary colors, instead of only two, and the amounts of these colors are no longer expressed in meaningless Kelvin temperature units but in a new log unit known as the Spectra Index, which brings illuminant, film and correction filters into a simple, direct relationship.

The old Spectra has given satisfactory service, within the limitations of the Kelvin color temperature concept. However, 'color temperature' must be based on the measurement of two colors only, it being assumed that the third color is present in the amount which theory would call for. This is usually the case when dealing with incandescent light sources, but is not always true in regard to other illuminants, and particularly to daylight.

The unfortunate shortcoming of "color temperature" is that while it may be quite accurate in dealing with incandescent light sources (which are virtually "black bodies") it is wholly inadequate in dealing with daylight and most artificial illuminants. The reason is simple. The Kelvin scale is adequate for the ratio of any given *two* colors in the spectrum (say, for example, the middle of the red and the middle of the blue) but for any given third color there is only one possible value at a given ratio of the other

(Continued on Page 320)

SPECTRA SENSITIVITY INDEX (SSI)

The following table shows the Spectra Sensitivity Index (SSI) for currently available color films:

EASTMAN FILMS	S.S.I
Ektachrome Type B	0/0
Ektachrome Daylight	14/7
Kodachrome Type A	2/1
Kodachrome Type B	0/0
Kodachrome Daylight	14/7
ANSCO FILMS	
Ansco Color Film Tungsten	0/0
Ansco Color Film Daylight	14/7

As fully explained in the instruction book for the Spectra Color Meter, the Spectra Distribution Index (SDI) read from the meter plus the Spectra Transmission Index (STI) for the required filter should equal the Spectra Sensitivity Index (SSI) of the film used.

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FIG. 3—Card furnished with meter shows the Spectra Index ratings (SSI) of available color film materials.

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Family—

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Positives
Sound Recording
Duplicating

Nothing
Can Be Better
Than The Best!

EASTMAN
IS THE BEST—

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Hypan captures those precious memories as no other film can. It has splendid panchromatic color balance—*plus extremely fine grain and sparkling contrast*—to give you outstanding results on your screen. Your family, your friends and neighbors, will not only applaud the brilliant lifelike quality of your movies made on Hypan . . . they'll want to come more often and stay later!

Next time, load your camera with Ansco Hypan and discover for yourself why so many amateurs are using this film for their black and-white movies. **Ansco, Binghamton, N.Y.** A Division of General Aniline & Film Corporation. *"From Research to Reality."*

INSIST ON *Ansco* **8 AND 16mm HYPAN FILM**

Filming With Perspective Control

Compositional advantages achieved with lenses of different focal length.

By CHARLES L. ANDERSON

THE CONTROL of perspective is one of the most valuable tools in the kit of many cinematographers. The best cameramen aren't satisfied to adjust only subject tones with their lighting and the "plane composition" in their framing. They know that perspective, too, can be under their control and choose their angles and lenses accordingly. Most amateur and some documentary filmers decide on what lens to use only on the basis of the amount of subject matter to be included in the scene; the very important effects on perspective that lens choice causes are invariably overlooked by them.

From a given camera position, the lens of short focal length will take in more of the setting while a longer focal length lens takes in less. And the amount included in the scene is inversely proportional to the focal length of the lens. But if you should move back with the longer lens to include the same view obtained with a short one, the final effect will *not* be the same. Scenes made with the wide angle lens will have a stronger perspective. In other words, foreground objects will be enlarged and distant objects made much smaller.

The wide angle is a lens of many uses, but its chief advantage is probably the ability to dramatize your set ups. Perspective is increased, objects and persons are rounded out, and movement towards and away from the lens is sharply accentuated. Melodramas are now almost exclusively filmed with short focal length lenses to give scenes extra "punch." The 24mm. and 28mm. lenses are the extreme ones, their equivalent in 16mm. work would be 12mm. and 14mm. Viewing low angle scenes made with these lenses, the camera seems to be a foot below the floor level. Walls seem to curve outwards, and shadows become menacing.

The 35mm lens, once considered strictly a wide angle lens, is now used as standard at several studios. It lends better modeling to the actors if they're not in too close and retains good perspective that helps keep the illusion of 3rd dimension on a flat screen. Some faces, however, are definitely not flattened by this lens, and it should not be used for big closeups, except where slight distortion is desired. A closeup with this lens has the distortion of a 28mm. or 32mm. lens on a long shot. The picture "Rope" was filmed entirely with 35mm. lenses to get the most out of the limited settings, as the picture was shot a full reel at a time. The equivalent lens for 16mm. cameras is the 17mm., one that can well be used as standard. The 16mm. filmer hasn't the crisp sharpness of the 35mm. filmer in his pictures; there's no limitation on perspective, however, and this lens can keep compositions forceful.

Filmers of industrial subjects should like this lens, as it will dramatize their clients' factories and display rooms. Assembly lines filmed with it look 30% longer, and buildings appear generally more spacious. The best cameramen are always on the alert for foreground props to enliven dull scenes and this is the lens that helps in this respect. Being shorter than the 1", it has more depth to keep the foreground piece in focus, and it will give separation between the various planes in the frame. Some sports filming would benefit from this lens, too, as the spectator sees more of the action.

T.V. films lose in two ways on the home receiver -their tonal range is compressed and sections of the frame are lost (15% top-and bottom and 20% on the sides is the accepted figure at one of the networks.) Using the shorter lens for films for T.V., you use a focal length that is more appropriate to the frame that is actually seen in the home. And you keep perspective lines strong to help

(Continued on Page 324)

FILM SIZE:	35mm.	16mm.	8mm.
	24mm.	12mm.	6mm.
	28mm.	14mm.	7mm.
LENS	30mm.	15mm.	7½mm.
	35mm.	17½mm.	9mm.
EQUIVALENTS	40mm.	20mm.	10mm.
	2 in.	1 in.	½ in.
(1 in. 25.4mm.)	75mm.	37½mm.	19mm.
	4 in.	2 in.	1 in.
	6 in.	3 in.	1½ in.

NOTE: Exact equivalents of standard camera lenses are often not obtainable for substandard cameras. At the present time, 13mm., 15mm., 17mm., and 20mm. lenses are available for short focus use with 16mm. cameras. A remounted gun-camera lens of 35mm. focal length can be used in place of the non-existant 37½mm. lens.

Movievox recorder synchronized with Bell & Howell 8mm. projector. Synchronism is maintained through flexible shaft connecting both machines, each operating under own power

Sound 'In Sync' For Amateur Movie Films

Movievox Synchronizer links any 8mm. or 16mm. projector with magnetic wire or tape recorder for making sound tracks for home movies.

By J. F BAILEY

THE RECORDING and playback of sound in perfect synchronization with amateur movies is easy as well as thrilling, now that magnetic wire and tape recorders and a dependable means of maintaining synchronism are available. One such synchronizer is that being marketed by the Movievox Company, of San Antonio, Texas. It may be used in conjunction with any 8mm. or 16mm. projector, silent or sound, and any wire or tape recorder, to provide synchronized sound for silent movies.

Simple and trouble free in operation, the Movievox provides synchronization of sound and picture to the exact frame. It will maintain "lip-sync" accuracy automatically, every time, and without the necessity for constant watching and adjustment of the mechanism as the picture is being screened. In other words, when you thread film in the projector and wire or tape in the recorder reproducer — with cue marks in their proper positions — both machines may be started and allowed to run without further attention, thus permitting the operator to sit with the audience and enjoy the picture.

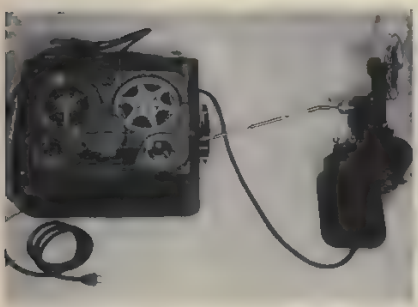
SHOWING Brush Soundmirror hookup with 8mm projector to provide "lip-sync" sound for silent home movie films. Both recording and playback are effected through same instrument.

The Movievox Synchronizer is composed of two units: the projector unit and the recorder unit. The projector unit is mounted on a bracket, using screw holes already existing in most projectors. It is connected to the projector's threading knob shaft by a special coupler, which replaces the projector's original threading knob. Where a threading knob is not provided, the Movievox Company can install one at a nominal charge. This projector unit "meters" the projector's speed (which may vary due to line voltage fluctuation) through a flexible shaft to the recorder synchronizing unit. The flexible shaft "floats" between the two machines, allowing the recorder to run only as the projector leads it. However, both machines operate on their own motors.

The Synchronizer induces no additional load or drag on either the projector or sound recorder. Its operation is smooth and unrestrained. The connecting flexible shaft is equipped with threaded fittings at either end, and can be attached or disconnected in a matter of seconds, permitting either machine to be used separately when desired.

In addition to the Synchronizer for projection of pictures, Movievox also has developed a Synchronizer for use with any cine camera equipped with an electric motor drive. This Synchronizer is driven from the camera motor shaft and connects to the recorder by means of a flexible shaft which may be had in lengths up to six feet. Thus, sound may be recorded in full synchronism with the action as the picture is

(Continued on Page 376)



SHOWING method of linking a Revere magnetic tape recorder with a Bell & Howell 8mm. projector, using the Movievox Synchronizer, which maintains sync regardless of playing time of film

Announcing

THE AMERICAN CINEMATOGRAPHER'S 1951 INTERNATIONAL AMATEUR MOTION PICTURE COMPETITION

* * *

The American Cinematographer's 1951 competition is open to amateur movie makers of all nationalities and in all countries of the world for films made in either 8mm. or 16mm. width, black and white or color. Unlike our 1950 competition, you do not have to be a member of an amateur cine club in order to compete nor must films be sponsored or submitted through such cine clubs.

Next year, ten awards for THE TEN BEST FILMS will be presented to lucky amateur cine photographers.

Qualifications for entries: all films must be wholly amateur produced, except for any commercial production of titles and processing. All sound film entries must be wholly amateur-recorded. Film length is restricted to a maximum of 800-ft. in 16mm., and 400-ft. in 8mm. Contest closes March 1, 1951. No films should be submitted before December 1, 1950.

AMERICAN CINEMATOGRAPHER
HOLLYWOOD

SOUND "IN SYNC"

(Continued from Page 314)

filmed. Planned or ad-libbed conversations can be recorded in absolute synchronism with lip movement. By using clap-sticks, same as in double-system film recording, editing the film and the magnetically recorded sound track is relatively easy.

It is a simple matter to install the Movievox Synchronizer units on most 8mm. and 16mm. projectors and on Webster wire recorders. Installation of Synchronizers on cameras or on other makes of wire or tape recorders usually is done by Movievox factory technicians. The Movievox Company also makes available a magnetic wire recorder with Synchronizer built in. This employs a Webster wire handling unit in conjunction with the Movievox amplifier and separate under-screen speaker. Movievox chose wire as its recording medium because of the longer playing time per unit, and the company also has produced its own brand of recording wire, said to have exceptional tensile strength and excellent reproduction quality. Spools are available in 20, 30, 40, 60, and 90 minute lengths, corresponding in playing time with most home movies.

The Movievox amplifier has input channels for both microphone and single or dual phonograph turntable pickups, plus a plug in for monitoring headphone. It provides a three-channel input switch with positions for recording, erase and playback, and allows use of amplifier as a public address system. Input channels are well balanced, with built-in mixer which permit phonograph music etc., to be faded at will as background for dialogue and action. The mixer is also available as a separate unit for use with other makes of recorders.

Magnetic *sound on film* is something that has been promised the movie amateur for some time. When and if that day arrives, owners of Movievox Synchronizers will be ready for it for the Movievox has provided facilities in its Synchronizer by which it will be possible to plug in a lead from any magnetic film sound head and play such films through Movievox equipment. Also, this feature will permit re-recording sound made for present films on a magnetic sound film track, using the Movievox Synchronizer to insure synchronism in the re-recording.

More and more movie amateurs are finding new interest in their movie hobby by adding synchronized sound to their films via magnetic recording. The author has recorded sound for countless films of his own and it was his early experiments that led to development of the Movievox equipment described here. Of interest is the fact that several producers of 16mm. industrial films have adopted Movievox equipment to their sound recording needs. They have discovered the quick erase and playback features of the Movievox saves them considerable expense that might otherwise be expended in the process of making conventional optical sound tracks. Using Movievox equipment, they record their sound tracks on magnetic wire or tape, then re-record the best "takes" s.o.t. when making final composite prints. The recordings are then erased and the wire or tape used again.

This "reusable" feature of magnetic recording mediums is a boon for the movie amateur, too. Should he wish to revise or improve a sound track for a film, he need only "erase" the recording by running the wire or tape through the recorder with the erase set, then re-record a new track. END.

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COLOR PHOTOGRAPHY

OPTIMUS MOTIF

Precision Optical Viewer for use in production of motion pictures.

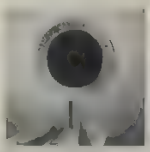
PRICE $97.50

Containing five viewing lenses which match the five standard lenses used in motion picture cameras (28, 50, 40, 50, 75mm), the Optimus Motif provides instant, overall scanning of the scene exactly as seen by the camera lens. Positive click stops and the milled ring on the instrument make it simple and easy to use. An optical adjustment is provided to compensate for varying degrees of eyesight.

C T COATED FILTERS

Mounted between optically flat glass, these Color Temperature Filters are low-reflectance coated for minimum light loss and freedom from flare. They are now available in a full range of sizes and a complete series to raise or lower color temperature by any desired amount.

COLOR CONTRAST VIEWING GLASS



This 2¢ density optical viewing glass, shows the highlight and shadow details of scenes exactly as reproduced on color film. Changes in illumination of subjects to be photographed may be made as indicated by the use of this viewing glass.

PRICE $2.95 plus excise tax

Panchromatic Viewing Glass for black and white film—$2.95 plus excise tax

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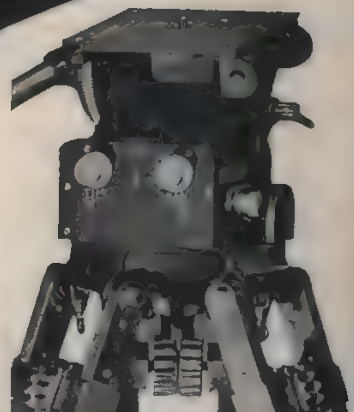
GEAR DRIVE

The head, made of Dow Metal magnesium, weighs but 5½ lbs. and is interchangeable with the Friction type head. It handles all types of cameras. Snap on metal cranks control pan and tilt action from both sides. Worm - driven gears are Gov't spec bronze.



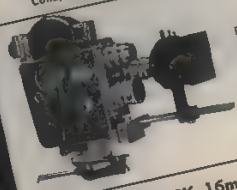
Small GYRO Tripod

This light weight GYRO Tripod performs with all the efficiency of larger, heavier and costlier tripods now in use.

New, small size GYRO tripod handles all 16mm. professional type cameras. Mitchell 16mm.; Auricon single system; Maurer 16mm.; motor-driven Cine Special; also 35mm. motor-driven Eyemo with 400' magazine. It features Super Smooth Pan & Tilt Action.

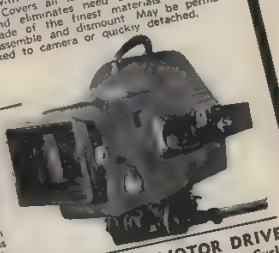
Positve pan-locking knob. Tilt locking lever. Quick wrist action locking knob for leg height adjustments. Pan handle can be inserted at 3 different positions on tripod head for operator's convenience or extreme tilt work. Legs are hard maple specially treated and warp resistant. Tripod head is Dow Metal magnesium and aluminum. Built-in spirit level. Swivel tie-down rings. Platform can be equipped for either ⅜ or ¼ inch camera screw.

SUNSHADE & FILTER HOLDER COMBINATION



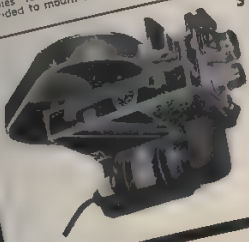
For use with Bolex and Cine Special 16mm cameras. Holds two 2" sq. glass filters and 2½" round Pola screen with handle which can be rotated for polarization. Covers all lenses from 15mm to 6" telephoto and eliminates need of various filters. Precision made of the finest materials. Compact, simple to assemble and dismount. May be permanently affixed to camera or quickly detached.

BLIMP for EK 16mm. CINE SPECIAL



This Blimp constructed of Dow Metal magnesium, is thoroughly insulated to afford absolute silent operation. Exclusive to this Blimp takes synchronous motor drive which couples to camera. A dovetail bracket is provided to mount an erect image viewfinder. Follow focus mechanism permits features of operating in Blimp while camera is tens focus while camera is running.

SYNCHRONOUS MOTOR DRIVE



110 Volt A. C., Single Phase, 60 Cycle

This motor will run in synchronization with either 16mm or 35mm sound recorders. It is provided with mounting platform which permits removal of magazine while camera remains mounted on motor.

Drive coupling attaches to single-frame shaft of camera and is mated to spring-steel drive arm of motor. This assures that camera mechanism cannot be damaged if a film jam occurs as the spring steel arm drive will shear. This is easily replaced.

A knurled knob on motor armature permits rotating for threading "On Off" switch built into base. Platform base threaded for ¼" and ⅜" camera tie-down screws. Rubber covered cable with plugs included.

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- **CAMERA SETUPS** — gives distance from lens to subject for normal size figures for lenses of various focal length.
- **LENS ANGLES** — Horizontal and vertical angles by degrees as obtained by lenses of various sizes.
- **CLOSEUP DIAPHRAGM CALCULATOR** — Shows changes in effective aperture for the measured light value when shooting small subjects at close range
- **LIGHTING EQUIPMENT** — all kinds analyzed and described.
- **DEPTH OF FOCUS** — for most all lenses.
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OLD MASTER, NEW TRICKS

(Continued from Page 309)

cinematic vehicle - and as such, it depends strongly upon the subjective eye of the camera to tell its intense story.

The photography in this film is honestly realistic, yet suffused with an aura of other worldliness that perfectly complements the mood of the story. It does full justice to the lavish, decadent elegance of the ghostly mansion in which lives the idol of another age. It strikes precisely the right note in portraying the heroine — unmistakably middle aged but a commanding figure, and still, in her own way, a beautiful woman. There is no varnishing of the truth for manufactured glamour, no mushy diffusion in an attempt to transform a fifty year-old woman into an illusion of eighteen year-old prettiness. Had this latter point been less honestly handled, the entire film would have lacked credibility.

"Sunset Boulevard" depends upon photographic mood for much of its dramatic effect. Thus the more intense sequences are played in a low key faithfully motivated by time of day as well as locale. The restrained lighting in these sequences leads the audience to focus its attention sharply upon the action and dialogue of the players in such a way that the performances could also be kept effectively restrained.

Wide-angle shots involving extreme depth-of-field are used most forcefully in this film. In one scene, the bandaged wrists of the actress (the result of a suicide attempt) dominate the foreground of the frame, while her young lover moves freely about in the background. Both planes are held in sharp focus. In another scene, the white-gloved hands of the butler are seen playing the organ in the foreground, while background action takes place in a widely separated plane.

To achieve this extreme depth-of-field it was necessary to use a greatly intensified light level and to latensify the film in order to stop down the lens aperture sufficiently. The latensification process added about two stops to the speed of the film, allowing a scene lighted for f3.5 to be shot at f7. This method was used in shooting about 15% of the total footage in the picture.

In one scene, the key-light illuminating the players actually came from a practical lamp appearing in the composition — a minimum of fill light being used to soften the shadows. This might be described as *source* lighting carried to the ultimate degree. Latensification also made possible the filming of realistic night exteriors and street scenes actually shot at night instead of in daylight with the use of filters.

The quest for realism led to the filming of many sequences in actual locales, including the Paramount Studio itself, filmed at night for the first time; a section of the Bel-Air golf course; exteriors of Schwab's drugstore, famed Hollywood hangout, and several apartment buildings and stores. A deserted 25-room mansion, built about World War I, served as an ideal exterior set for Miss Swanson's presumed home. The only thing that it lacked to fit the description in the script was a swimming pool. So one was built — and then filled in again after completion of shooting, to conform to the wishes of the owner.

The interior of the house, built on the set at Paramount, was cluttered with ornate furniture, a gold plated piano, a pipe organ, a motion picture screen on the wall with a projection room opposite, heavy carved tables and chairs, a huge fireplace, ship models, a Turkish waterpipe, and a lavish bed shaped like a gondola with a curved prow, golden cherubs, and a silken canopy.

The interior of Schwab's drug store was duplicated down to the last toothbrush. Actual merchandise was brought in to fill the counters and shelves. The soda fountain was a practical one, dispensing real ice cream, sandwiches, etc. Even the licenses were borrowed from the drug store and hung in their proper places.

An extraordinary scene is included in the sequence which shows the young writer's body discovered floating face downward in the swimming pool. The effect is that of looking up through the water from the bottom of the pool to see the victim's face and the police photographers standing on the pool edge and shooting photographs in the background. Placing the camera under water would not have given the desired effect, since the water's surface acts as a mirror and would have prevented anything outside of the pool from being seen. Instead, a giant mirror was placed under the water. The camera was set up alongside the pool and the reflection in the mirror was photographed. The effect is striking, to say the least.

A compressed air gun fired by an electric solenoid valve was used where Miss Swanson presumably fires a revolver at her lover, missing his head by inches and breaking a heavy plate glass door. This gadget, accurate to the fraction of an inch when set-up properly, resembled a surveyor's instrument. The "bullet" was a half inch steel ball bearing. The "gun"

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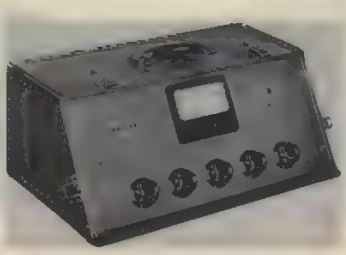

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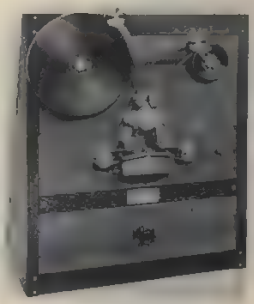

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To film a sequence where Miss Swanson and her boyfriend do the tango, director of photography Seitz used a *dance dolly*—a small platform on wheels — placed immediately in front of and attached to the camera which, in turn, was also mounted on a moveable platform. Men behind the camera moved both the camera platform and the dolly, thus permitting a shot of the dancers making a complete 360 degree turn around the room. The basic idea is far from new, Seitz first introduced it when he filmed Rudolph Valentino and Alice Terry dancing the tango in "The Four Horsemen of the Apocalypse" back in 1921.

Seitz approaches a film with the idea of letting the photography tell the story in the most interesting and dramatic manner possible. With this in mind, he pays a great deal of attention to the presentation of sets as well as proper photography of the players.

"I always try to dramatize the locale of a story photographically," he explains "because in most cases the setting has a great deal to do with the drama of the situation This was true of 'Double Indemnity,' 'Five Graves to Cairo,' and 'The Lost Weekend.' It was especially true of 'Sunset Boulevard,' because in that film the decor and mood of the principal setting was an unmistakable clue to the personality of the main character."

As a cinematographer, Seitz is a craftsman of great professional integrity and he proves this in his working approach to a film. Where another cameraman might be inclined to play it safe (especially in this day of restrained budgets) by using tried and true formula techniques, Seitz doesn't hesitate to "stick his neck out" to try for the unusual and original effect and he invariably comes up with an exciting result.

"It is possible to make a motion picture too polished, too glossy, and too perfect in every detail," he points out. "The result is a dull and lifeless film. I believe that a motion picture should be alive and not dead — spontaneous instead of calculated. I have no preferences as far as subject matter of assignments is concerned – as long as I am given scripts that can be made to 'come alive' through a well co-ordinated combination of acting, direction and cinematography."

Far from being a trickster out to create an effect for its own sake, John F. Seitz, A.S.C., remains, after more than 30 years in the industry, an alert experimentalist, constantly searching for new approaches and original camera techniques to make the motion picture a more live dramatic medium.

He has been at the top of his profession since the days of Valentino; yet there are no cliches in his style—as modern as tomorrow, rugged, forceful, and (above all) alive Pictures like "The Lost Weekend," "Double Indemnity" and "The Big Clock" prove the force of his photography as a story-telling instrument — and he insists that cinematography must exist to tell the screen story, rather than to stand out as a separate artistic entity. "Sunset Boulevard" more than proves his point.

NEW THREE-COLOR METER

(Continued from Page 310)

two. For example, for any given blue-red ratio, green can have only one value, as expressed in Kelvin color temperature. Since any illuminant other than incandescent lamps is quite likely to have more green or less green than a black body, color temperature fails to describe it. In other words, color temperature would be adequate for two-color photography, but fails completely when applied to *three-color* photography, which is what interests most cinematographers today.

For this reason, Photo Research has spent several years in the development of a convenient system which would relate the amounts of red, green and blue in an illuminant to the different types of color film and to the selection of any necessary corrective filters

This has resulted in a simple log index derived from the ratios of Blue to Red and of Green to Red. For example, the Spectra Index for photoflood lamps is 2.0 1.0. This means that a photoflood lamp which is emitting light of the color for which Type A color film is balanced should give a reading of 2.0 on the Blue-Red scale of the meter, and of 1.0 on the Green Red scale.

If the B-R reading is more than one half unit high or low, a correction filter of the Turquoise-Salmon series must be applied. If the G-R reading is more than half a unit away from the correct value, a correction filter of the Green-Magenta series must be placed over the lens. In either case, a convenient computer (Fig. 2) indicates directly the filter to employ in a given case. A card is furnished indicating the Spectra Index ratings of available color film materials (Fig. 3).

To enable users to obtain the full

benefits of the three-color system. Photo Research is also making a complete series of mounted glass filters to match the scales of the Three-Color Spectra One series of filters, the CT, provide the usual type of correction for yellowish or bluish light The new series, the GC, correct for a deficiency or excess of green in the illuminant.

In addition to furnishing the new meter Photo Research Corp. is prepared to convert any of the older two-color Spectra meters to the new model, at a reasonable charge, the shape and general construction of the instrument remaining unaltered

BABY CAMERA-DOLLY

(Continued from Page 307)

man. The steering control is essentially the well known "bicycle" type—a horizontal bar attached to a vertical shaft leading directly to the gear box. A conventional gear shift controls the pattern of travel square or round as it is designated. There is a dial and pointer near top of the steering shaft which affords the operator a precise guide in executing intricate travel shots The degree of turn at a given point may be chalked on the dial insuring the correct turning of the steering bar as travel proceeds

Instead of single, balloon-tired wheels, dual wheels are used fitted with 12-inch zero pressure rubber tires. This affords a wider wheel contact with the floor and therefore more rigidity to the dolly, without encumbering the steering. Velvet smooth operation of dolly travel as well as of all moving parts is assured by use of over 65 ball bearings, the largest of which are installed in the wheel hubs.

The two patterns of travel are designated on the gear shift panel as "square" or "round." One of the chief advantages claimed for the spin or circular pattern of travel is in shooting in close quarters —around massive furniture which cannot readily be moved. In this, the back wheels follow precisely the path of the front wheels making it possible to manuever the dolly through very narrow passages and make abrupt turns.

We employed the dolly in making several prolonged travel shots of this type on sets for "The Hero." In one instance, the dolly travels forward about ten feet, shifts to the right about 18 inches, then continues forward, then turns slightly to right, backs up a few feet, then moves forward tracing an elongated and somewhat irregular "U" But the execution was simple and was performed within very narrow limits of the stage.

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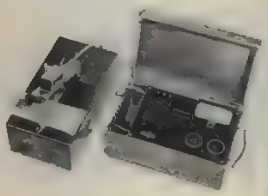

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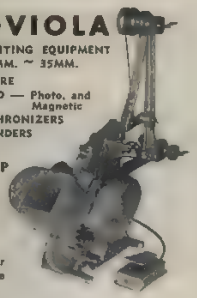

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vantageous in making dolly or follow shots such as, say, that of a man walking around a room of an art gallery, looking at pictures hung on the walls. The camera can travel the full length of the room, then do a "squads right" and continue at right angles *with the dolly and the camera position (with relation to subject) unchanged*. In other words, the dolly remains pointed in the same direction, the wheels only changing direction in making the right angle turn. Of course, as with other camera dollies, the Dual Steering Camera Dolly can be set for conventional travel shots in which the pattern of travel is determined by tracks or regular steering. The dolly may be used with or without tracks; on "The Hero" sets, we provided a smooth tracking surface by laying down panels of hard-surfaced 5 ply wall board over the area in which we were to work.

On the basis of wide use of the dolly on this production, I can vouch for its many time-saving as well as mechanical attributes. It permits a cameraman to keep a more balanced picture from a composition point of view. It eliminates the need for booms, except for exceptionally high travel shots, and is indeed more flexible than the average camera boom, due to its compact size. From the point of saving time, it drastically reduces the time required in making setups again because of its small size and portability and the fact only one man is required to move it into position and align it for the shot. Instead of four or five cuts, required so often where camera is mounted on other types of supports, this dolly makes it possible to film a given action in one continuous shot. Even where it is not used as a dolly, it is still a better camera support than any other dolly, perambulator or tripod because it permits quicker shifting to new setups.

Director David Miller was able to shave considerable time from our shooting schedule by revising his script on several occasions to telescope a number of scenes into one continuous take, executed with the aid of this dolly; and Sidney Buckman and Buddy Adler, executive-producer and producer respectively of "The Hero," expressed their enthusiasm on the set for the many unusual cinematic touches with which we have embellished the picture, thanks to the Dual Steering Camera Dolly.

Its compact size and light weight, of course, make the dolly an ideal piece of equipment to use on remote locations. Four men can lift it into a truck or utility trailer. Ultimately, the dolly should find wide use in the making of commercial films and it obviously is well adapted to use by television studios—although it is presently available only for rental to Hollywood studios. But as its fame spreads, demand is certain to result in quantity production of the dolly for outright sale to studios, 16mm. film producers and others.

CAPTURING REALISM IN COLOR

(Continued from Page 306)

color with tactful camera placement to keep action and players dominant at all times.

This is particularly evident in the closeups, most of which were filmed with a wide angle lens. There are instances where composition is such that one camera setup is made to do the work of two or three, and at the same time produce more fluid continuity of action without distracting cuts.

When McCrea arrives at the widower's ranch, the camera is brought down to a lower level, for henceforth attention centers on the four lads soon to be orphaned, and a warmer, friendlier feeling is generated. Grips produced a special underslung camera dolly for these shots simply by inverting a conventional dolly and adding planks to its undercarriage, which afforded a platform only two inches above the ground. Thus Boyle was able to lower his camera a full twelve inches.

Inside the modest ranch house, ceilings are visible in most shots, but these have been rendered more or less unobtrusive by skillful lighting. Few who see the picture may remember the ceilings, but their presence exerts a subtle compositional influence in the photography.

To create a rainstorm setting for the early scenes in "Saddle Tramp," studio technicians manufactured an artificial storm over 95,000 square feet of Universal-International's back lot. Forty rain towers, each 30 feet high, inundated the area at a rate equal to one inch of rainfall every two hours.

The scenes photographed in this "rain" are some of the best filmed in Technicolor to date. Rain, especially in color, is a difficult subject to photograph realistically. Boyle employed a technique he also used later in shooting the dark interiors of the forest. Instead of attempting to light the whole set in an effort to show rain falling over the entire scene, he simply highlighted one small portion of it. Thus, raindrops were clearly visible with near three-dimensional clarity. Carefully calculated lighting accentuated

the splash of the raindrops, and in the medium and long shots rain puddles were created artificially for still greater realism. In another rain scene a rainbow appeared something that special effects artists have sought to create for years. It is included in the picture for a startling effect on the screen.

Southern California ranches within a 30 mile radius of the studio provided location sites for "Saddle Tramp" one, a 7,000 acre site, is devoted almost exclusively to movie makers. A great many of the subsequent scenes for this picture were played deep in the shade of a forest of mammoth oaks on this ranch. Here McCrea's young charges set up camp, and Boyle's camera, aided by a minimum of artificial lighting equipment, has done an artful job in recording the night and day scenes enacted there.

The thing that immediately strikes the observer in watching these scenes on the screen is the absence of artificiality in the lighting that so often characterizes scenes photographed in deep shade. Boyle's lighting is subtle. He projected just enough light into these scenes to produce separation, using Brutes powered by a portable thousand amp generator. He employed no sunlight reflectors. The quality of the lighting was achieved to great extent by the right combination of filter gels and diffusers used with the Brutes. Sunlight, however, supplied the bulk of the lighting sunlight filtering down through the trees or reflected from the ground or nearby buildings or objects. Among the shots marked for photographic excellence are those where McCrea and the boys are riding through the forest on horseback. Here no light was used other than the shafts of sunlight which found their way through openings among the trees.

In the climactic fight sequence, the low camera technique was again employed. This fight between McCrea and stocky John Russell was staged on the slope of a hill. The camera was placed to "look up" at the fighters. This had two purposes: it accentuated the action and lent a sense of added bigness to the battlers. It also avoided picking up with the camera any of the distant background objects, leaving a clear blue sky for a backdrop.

Boyle used a wide angle lens on over 95 per cent of the shots, even for most closeups. When he did employ a lens of longer focal length, he purposely subdued background lighting to offset any suggestion of shallow depth of focus inherent in the longer focal lens.

There is nothing new in any of the techniques described here, of course. They are familiar to most directors of photography. But not all photographers perhaps have had opportunity to so consistently employ them. Boyle credits U-I's pro-

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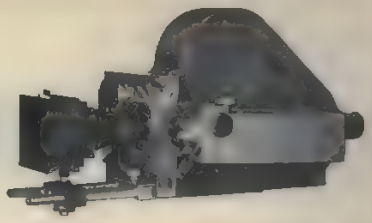

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duction manager Jim Pratt and especially director Hugo Fregonese for making possible the good photography of 'Saddle Tramp.' Obviously, a cinematographer can accomplish more, given unlimited cooperation, than where false economy measures hamper the camera planning of a picture.

"Fregonese is a 'cameraman's director.'" Boyle said. "He sees eye-to-eye with me in picture composition and understands the value of the right camera angle to enhance a particular bit of action. It may be written in the script one way, but if he can be shown a better way he'll verify it by checking through the camera viewfinder and go along with the suggestion.

"Joel McCrea also did a lot to ease the way for our camera crew. He, too, is a cinematographer's favorite, unspoiled by many years before a movie camera. He didn't ask for nor did he want any special glamourizing lighting. He insisted on looking just as he is, without being 'prettied up' with special lighting or the killing of shadows, etc. As a result, McCrea appears the genuine, virile personality he is in real life."

Perhaps the real success of the photography, Boyle will tell you, was insured in the early stages of planning the picture. He was present and consulted during all pre-production planning. As a result of working closely with the producer, director, art director and set designer, he was able to thoroughly visualize the entire picture and to plot the photography in advance.

"Admittedly," he says, "no cameraman can do his best when put to work on a picture 'cold' without much more information than he gains from reading the script. Being able to aid in the planning of a production nets the best results for all concerned."

FILMING WITH PERSPECTIVE CONTROL

(Continued from Page 313)

make up for lost detail in the electronic processes.

The ability of wide angle lenses to increase apparent subject motion to and from the camera can be used rather forcefully at times. A train roaring at the camera is given impetus if shot with a short lens, and T.V. commercials with their zooming boxes of the sponsor's product are a logical user of this type of objective. Dolly shots are best done with a short lens if the photographer isn't equipped with a professional dolly and tracks. The shorter the lens, the less the dolly need be moved to produce the same amount of image size change.

When you're shooting outdoors, the shorter lenses tend to give you more foreground and the longer lenses less. If you're filming some beautiful gardens in 16mm., by all means use a 15mm. or 17mm. lens on the long shots. The gardens will be made to appear much more spacious. More ground in any shot is also obtained by heightening the camera and tilting down slightly. Conversely, ground near the camera can be eliminated by using a lower angle and tilting up a bit. This is useful to remember when your shot in finder looks cluttered up with foreground.

Sets that would look cramped with a normal lens are made to appear larger with the wide angle. People are apparently separated and the walls of the room are not so enclosing. Most commercial and T.V. films are made on slim budgets these days, and if larger looking sets are desired, the cinematographer can well cooperate with the art director by using shorter lenses and slightly lower angles when possible.

Almost every 16mm. camera is supplied with a 1-inch lens as "standard." The perspective obtained with it seems to be what the eye sees. Therefore, it's a good safe lens to use when in doubt, and much of the other time, too. There's very slight danger of the awkward distortions that can occur with the short lenses, and they can be counted on to give a satisfactorily-rounded image. Because the photographer must be about 18 feet from the subject to get a full head-to-feet scene, the normal lens can be very easily used for candid work.

Most closeups in feature pictures are made with a 75mm. lens. The stars' faces are reproduced flatteringly and the photographer doesn't have to work with his camera within two or three feet of the players. Lighting, too, is made easier thereby. The available equivalents in 16mm. lenses are: 35mm. or 40mm. and 2". Except for a few persons with rather flat faces, almost everyone looks better when photographed in closeups with the longer focal lenses.

Long shots made with the longer lenses have a tendency to look "cluttered" if there are several different planes of subject matter in the frame. Pictures of traffic congestion are made to look even worse, for example. And marching soldiers in some 35mm. documentaries have been made to appear more concentrated by being photographed with six and eight-inch lenses.

For professional work, especially when the work is to be done with color film,

it is advisable for the photographer with a full complement of lenses of varying focal lengths to have the lenses re-calibrated for light transmission. Thus, if he has established a light reading of, say f 8, for a scene, he can shoot long shot, medium shot and closeups, using his different lenses with the confidence that setting each at f 8 will render uniform exposure. It is not uncommon that a photographer will find even his top quality lenses varying as much as a full stop. It would indeed be shortsighted to equip one's camera with a wide range of lenses, to achieve complete perspective control, and not safeguard photographic quality through recalibration of the lens stops.

SHOOTING 16MM. COLOR FOR BLOWUP TO 35MM.

(Continued from Page 308)

than its original in certain respects, there are factors such as original sharpness and contrast which are definitely limited by the way they appear on the 16mm strip.

"In a blow-up to 35mm.," he explains, "every little error or oversight in shooting is magnified many times. For this reason a scene that has a passable or even attractive softness in the 16mm. original becomes unpleasantly fuzzy when blown up to 35mm. For this reason, the cameraman shooting for blow up must check the calibrations of each lens to make sure they are accurate. New lenses especially should be given precise focus tests before shooting begins. A 35mm blow-up can only be as sharp as its 16mm. original."

The bane of the technician's existence is 16mm. original which enters his lab with tiny scratches or cinch marks, these are almost certain to be exaggerated in the blow-up process. Because of this, it is highly recommended that 16mm. slated for blow up be *lacquered* before being handled at all. This process puts a hard scratch resistant finish on one or both sides of the film, protecting it from abrasion and tending to fill in small scratches that already exist. But even when lacquered, original film should be handled with utmost care — and then only when the editor is wearing clean editing gloves.

In order to insure the best results when filming for blow up, there are certain precautions which should be observed. Firstly, any optical printing process tends to increase contrast over that of the original. For this reason, the 16mm. Commercial Kodachrome emulsion should be used as shooting stock because it is a special low contrast emulsion specifically designed for duplication. For the same reason, the lighting in scenes

(Continued on Page 327)

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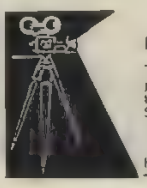

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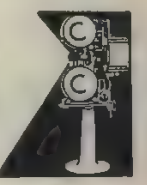

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Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month

Allied Artists

• HARRY NEUMANN "Short Grass," with Rod Cameron, Cathy Downs Raymond Walburn, and Johnny Mack Brown Leslie Selander, director

Columbia

• LEE GARMES "The Hero." (Sidney Buchman Enterprises) with John Derek and Aldo Da Re David Miller, director

• JOSEPH WALKER "Born Yesterday," with Broderick Crawford Judy Holliday, William Holden, and Millard Mitchell. George Cukor director

• WILLIAM SNYDER, "The Flying Missile," with Glenn Ford, Viveca Lindfors, Henry O'Neill, Anthony Ross and Richard Quine Henry Levin, director

• LESTER WHITE "When the Redskins Rode," with Jon Hall, Mary Castle, Pedro de Cordoba and Sherry Moreland Lew Landers, director

•CHARLES LAWTON, "The Romantic Age," with Margaret O'Brien, Allen Martin, Jimmy Hunt Sharyn Moffett and Lloyd Corrigan Seymour Friedman director.

•PHILIP LANDERS, "Flame Of Stamboul," with Richard Denning, Lisa Ferrady, Don Randolph, George Zucco and Nestor Paiva Ray Nazarro director

Eagle-Lion

• JACK GREENHALGH, "Rogue River" with Rory Calhoun Jane Lidell, Peter Graves, and Frank Fenton John Rawlins, director

• EMER DYER, "Border Raiders," with Spade Cooley, Maria Hart, Gordon Barnes, and Bill Kennedy Richard Talmadge, director.

Independent

• JACK CARDIFF, "Pandora And The Flying Dutchman," (Lewin-Kaufman Prod., shooting in Europe) with James Mason, Ava Gardner Albert Lewin, director.

• STEWART THOMPSON, "At War With The Army," (York Prod.) with Dean Martin Jerry Lewis and Polly Burgen Hal Walker director.

M-G-M

• ROBERT PLANCK, "Royal Wedding," (Technicolor) with Fred Astaire, Jane Powell, Peter Lawford, Sarah Churchill and Keenan Wynn Stanley Donen director

• ROBERT SURTEES and WILLIAM SKALL, "Quo Vadis," Shooting In Italy) with Robert Taylor, Deborah Kerr Mervyn LeRoy, director

• PAUL VOGEL "Three Guys Named Mike," with Jane Wyman, Van Johnson, Howard Keel, Phyllis Kirk and Jeff Donnell Charles Walters, director

• GEORGE FOLSEY, "Mr Imperium" (Technicolor) with Lana Turner, Ezio Pinza, Marjorie Main, Sir Cedric Hardwicke and Nina Koshetz Don Hartman, director

• WILLIAM MELLOR, "Across The Wide Missouri," (Technicolor) with Clark Gable, Maria Elena Marquez John Hodiak, Ricardo Montalban, James Whitmore, Adolphe Menjou, J Carroll Naish, Jack Holt and Doug Fowley William Wellman director.

• ALFRED GILKS "American in Paris," (Technicolor, with Gene Kelly Leslie Caron Georges Guetary, Nina Foch and Oscar Levant Vincente Minnelli, director

• HAL ROSSON "Red Badge of Courage," with Audie Murphy, Bill Mauldin, Royal Dano Douglas Dick and Arthur Hunnicutt John Huston, director

Monogram

• HARRY NEUMANN, "Texas Raiders," with Johnny Mack Brown, Jane Adams and Riley Hill Lewis D Collins director

• MARCEL LEPICCARD, "The Bowery Thrush," with Leo Gorcey, Huntz Hall, Adele Jergens, and Phyllis Coates William Beaudine, director

Paramount

• LOYAL GRIGGS, "Passage West," (Pine-Thomas Prod.) with John Payne, Dennis O'Keefe Arleen Whelan Frank Faylen Mary Beth Hughes Lewis R Foster, director

• CHARLES LANG, "Are In The Hole," with Kirk Douglas, Jan Sterling, Porter Hall, and Richard Benedict Billy Wilder, director

• DANIEL FAPP, "The Lemon Drop Kid," with Bob Hope, Andrea King, Fred Clark, Marilyn Maxwell and Lloyd Nolan

• JOHN SEITZ "The Goldbergs with Gertrude Berg Philip Loeb, Eli Mintz, Larry Robinson and Barbara Rush Walter Hart director

• RAY RENNAHAN, "Warpath, (Technicolor) (Nat Holt Prod.) with Edmond O'Brien Dean Jagger Forrest Tucker and Harry Carey Jr Byron Haskin, director

• GEORGE BARNES, "Carrie, with Laurence Oliver, Jennifer Jones, Eddie Albert Ruth Warrick, Basil Rysdael and Mary Murphy William Wyler, director

R.K.O.

• ROY HUNT, "Footlight Varieties" with Jack Paar, Red Buttons, Nicco and Grace, Wendy Waldron and Herb Vigran George Bilson director

• EDWARD CRONJAGER, "Best Of The Badmen" (Technicolor) with Robert Ryan, Claire Trevor, Jack Buetel Robert Preston and Walter Brennan. Wm Russell director

• GEORGE DISKANT, "The Gallot Woman," with Dana Andrews, Claude Rains Carla Balenda, Philip Dorn and Eric Feldary Alfred Werker, director

• HARRY WILD, "Macao," with Robert Mitchum, Jane Russell William Bendix, and Thomas Gomez Josef von Sternberg, director

20th Century-Fox

• JOE MCDONALD, "Fourteen Hours." with Paul Douglas Richard Basehart, Deborah Paget, Jeff Corey, Agnes Morehead Henry Hathaway, director

• JOSEPH LASHELLE, "The Jackpot," with James Stewart, Patricia Medina, Alan Mowbray, James Gleason, Natalie Wood. Walter Lang, director

• LLOYD AHERN, "For Heaven's Sake, with Clifton Webb Joan Bennett Robert Cummings Edmund Gwenn, and Joan Blondell George Seaton director

• ARTHUR E RING, "Call Me Mister" (Technicolor) with Betty Grable, Dan Dailey, Danny Thomas, Dale Robertson, Frank Fontaine, and Benay Venuta Lloyd Bacon director.

• MILTON KRASNER, "Half Angel," (Technicolor) with Joseph Cotten, Loretta Young, Cecil Kellaway Basil Rysdael and John Ridgely Jules Dassin, director

• WINTON HOCH, Bird of Paradise, (Technicolor, with Louis Jordan, Debra Paget, Jeff Chandler, Everett Sloane Delmer Daves, director

• LUCIEN BALLARD, House On Telegraph Hill with Valentina Cortesa, William Lundigan Richard Basehart and Fay Bainter Robert Wise, director

United Artists

• FRANK PLANER, "Cyrano de Bergerac" (Stanley Kramer Prod.) with Jose Ferrer, Mala Powers, William Prince and Morris Carnovsky Michael Gordon, director

Universal-International

• CARL GUTHRIE, "Undercover Girl,' with Alexis Smith and Scott Brady Joseph Pevney, director

• CLIFFORD STINE, "Mystery Submarine," with Macdonald Carey, Marta Toren, Robert Douglas and Ludwig Donath Douglas Sirk, director

• PEVERELL MARLEY, "Illegal Bride," (Fidelity Pictures) with Ginger Rogers, Jack Carson, Joan Davis and Stanley Ridges Richard Whorf, director.

• IRVING GLASSBERG, "The Fat Man,' with J Scott Smart, Julie London, Rock Hudson, Clinton Sundberg, and Jayne Meadows. William Castle, director

• CHARLES BOYLE, "Apache Drums" (Technicolor) with Stephen McNally, Coleen Gray, Willard Parker and Arthur Shields Hugo Fregonese, director.

• WILLIAM DANIELS "Lights Out,' with Arthur Kennedy, Peggy Dow, James Edwards, and Rock Hudson Mark Robson, director

• MAURY GERTSMAN "Prisoner Of War, with Mark Stevens Robert Douglas, Alex Nicol, Gig Young and Johnny Sands George Sherman director

Warner Brothers

• WILFRED CLINE, "Raton Pass," with Dennis Morgan Patricia Neal, Steve Cochrane and Scott Forbes Edwin L. Marin, director

• SID HICKOX, "The West Point Story," with James Cagney, Virginia Mayo Doris Day, Gordon MacRae, Gene Nelson Roy Del Ruth, director

• ROBERT BURKS, "The Enforcer," (United States Pictures) with Humphrey Bogart, Roy Roberts Ted de Corsia and Bob Steele Bretaigne Windust, director

• LIONEL LINDON, "Only The Valiant,' (Cagney Prod.) with Gregory Peck, Jeff Corey, Ward Bond Terry Kilburn, Lon Chaney, Jr Gordon Douglas, director

• HARRY STRADLING, "Streetcar Named Desire" (Chas K Feldman Group Prod.) with Vivien Leigh, Marlon Brando, Kim Hunter Elia Kazan, director

• ERNEST HALLER, "Jim Thorpe, All-American," with Burt Lancaster Charles Bickford, Phyllis Thaxter, Steve Cochran Michael Curtiz director

SHOOTING 16MM. COLOR FOR BLOWUP TO 35MM.

(Continued from Page 325)

slated for blow up should be kept relatively flat unless low key or special effects are desired.

Theoretically, all color layers in a monopack emulsion should have the same degree of contrast — but sometimes this isn't so. In such cases one or more of the color separation negatives used for blow-up can be specially treated to cut down the harsh contrast and bring the print more nearly into balance.

We have pointed out above how even lenses produced by the best manufacturers sometimes vary in calibration and resolving power — hence the necessity for preliminary tests. Also, it is a characteristic of wide angle lenses (even the best) to be inherently less sharp than other focal lengths. With this in mind, most experienced cameramen try to avoid wide angle set ups when shooting for blow-up. They also try to stay in as close as possible to the subject since close ups reproduce much more clearly than long shots.

As far as exposure is concerned, the best results are obtained from scenes with correct normal exposure — but if there is any variation it should be on the heavy side. Since there is a much better chance of correcting from a full-bodied original than from one that is washed out. Blue and green tend to go darker in the blow-up process, so it is a good idea to slightly overexpose marine scenes and others where there is a predominance of such shades. Similarly, in designing sets and costumes it is advisable to keep blues and greens on the light side.

In scenes where people are included, the safest rule is to expose for the flesh tones, since this is the one color which will look really odd to an audience if it is not faithful. Wherever possible, try to balance the lighting of the background to coincide with the flesh tone exposure — but where this is impossible and people are prominent in the scene it is still better to favor them and sacrifice the background.

Where budget is sparse and a 35mm. release is still desired, many producers are now blowing up 16mm. originals to black and white 35mm. In this process one or more fine grain negatives are made complete with dissolves and other effects. The release prints are made directly from the negative through regular contact printing. Proper selection of negative stock and precise control in printing insure good tone gradation without a build-up in contrast. Here, again, a sharp, well-timed original will insure a blow up of good technical quality.

(Continued on Page 329)

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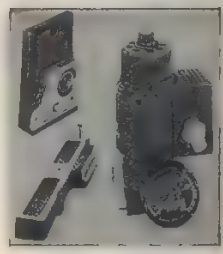

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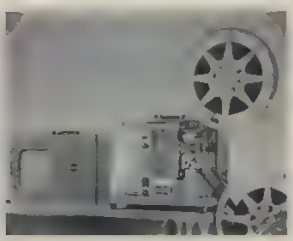
Film Price Increase

Manufacturers of DuPont motion picture film announce that increasing costs of production make it necessary for company to raise prices of nitrate motion picture film an average of 5.3 per cent. Change became effective with shipments as of August 7th. Nitrate release positive was increased from $11.00 to $11.50 per thousand feet, before taxes; nitrate sound stock from $13.00 to $14.50 per thousand feet. Safety film stock prices remain unchanged.

New Kodak 16mm. Projector

Eastman Kodak Company announces a new, compact and lightweight Kodascope sound projector. Tradenamed the Pageant, it is priced at $325.00 complete with Lumenized 2 inch 1:1.6 Ektanon lens. Weight is less than 33 pounds. Both



speaker and projector are built into the single unit case. A 750 watt lamp is furnished, but a 1000 watt lamp may also be had. Reduction of number of moving parts, say Eastman engineers, accounts for projector's smooth, quiet running. Gears are made of Nylon and film rollers are made of Tenite. Bearings are either oil-impregnated or ball bearings with sealed-in lubricant. Sound head is rotary type with drum and solid flywheel.

Filter Data Book

"Filters And Lens Attachments" is title of valuable new book announced by Eastman Kodak Company, which will prove valuable to photographers in all branches of the art.

Compact publication runs the gamut from simple filters intended for amateur use to specialized Wratten Filters for scientific and technical purposes. More than 200 different filters are covered in publication, also combination lens attachments, etc. Liberally illustrated and carefully indexed, book is available at all Kodak dealers. Price is 50 cents per copy.

Hi-Speed Wide-Angle Lens

A new wide angle Balowstar lens has been announced by F. G. Back Video Corp., New York, for use with 16mm.

cameras. Providing speed to spare, this f/1.3, 15mm. 12-element coated lens makes possible excellent results under adverse light conditions. Lens may be used on any turret-mounted camera without interference with other lenses.

Film Processor

An automatic 16mm film processing machine priced under $100.00 has been announced by S.O.S. Cinema Supply Corp., New York City. Tradenamed the Bridgamatic, model fits needs of TV stations, and producers of 16mm. TV, educational and industrial films. Overall size of apparatus is 51" long, 21" high by 23" wide. Features include patented overdrive, air squegees, built in dry box,

heating elements and neoprene lined steel tanks of two-gallon capacity.

Positive film may be developed at rate of 600 ft. per hour; negative at 160 ft. per hour, using but one gallon of solution.

Fixed-Focus Magazine "8"

For those movie amateurs who like the convenience of magazine loading plus the simplicity of a fixed focus lens, Eastman Kodak Company has introduced a

new version of its popular Cine-Kodak Magazine 8 camera. Body and mechanism are the same as current model but the finder has been changed to one designed for use with a fixed-focus lens, plus an interchangeable telephoto lens recommended for use when long focus effects are desired.

New model is fitted with a 13mm. f/2.7 Lumenized Ektanon lens in bayonet mount and is priced at $127.50.

New T. T. H. 16mm. Lens

Bell & Howell Company announces a new Taylor, Taylor & Hobson 4-inch lens for 16mm. cameras, made to their specifications, which is reported nearly 50% faster than any similar lens on

market. Lens will fit any 16mm. movie camera with screw-type lens mount. Tradename of new lens is Panchrotal 4-inch T-2.5, and features click stops and depth of field scale. For further data and price, write Bell & Howell Company, 7100 McCormick Road, Chicago 45, Ill.

KEEPING UP WITH PHOTOGRAPHY

(Continued from Page 302)

now processes his own color films can use the new film to produce anywhere from one to 10,000 duplicates, all equal in color and quality. Material is available in sheets from 4 x 5 inches up to 16 x 20 inches. It may be processed in the regular Kodak Ektacolor Processing chemicals.

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PRINCIPLES OF COLOR SENSITOMETRY is a basic text just released by the Society of Motion Picture and Television Engineers to cover for the first time this science which is basic to color motion pictures. It deals at length with the instruments available for use in color research and for quality control in practical use of color processes now enjoying commercial success. The practical achievement of photography in natural color as compared with theoretical possibilities and the areas where further research is required are stated with great competence.

Technical knowledge and guidance provided by this text, which is a cooperative committee production, will be helpful to the motion picture industry, as well as to color television, still photography in natural color, and in the graphic arts where color is one of the most valuable tools. It forms a foundation for development of common language among the users of color film and will help guide industrial practices during future years in the direction of standardization of many aspects of color sensitometry.

In its 72 pages, *Principles of Color Sensitometry* contains sections on: Sensitometric Exposures; The Processing of Sensitometric Tests; Quantitative Evaluation of the Image; Densitometer Design Principles; Transformations Between Integral and Analytical Densities; Interpretation of Sensitometric Results; Statistical Aspects of Color Sensitometry; and References. The report was published in the Society's *Journal* in June, 1950; separately bound copies, nicely reprinted, are now available at $1.00 from the S.M.P.T.E., 342 Madison Ave., New York 17, N.Y.

SHOOTING 16MM. COLOR FOR BLOWUP TO 35MM.

(Continued from Page 327)

A great many foreign countries are beginning to use 16mm. color blow-up as a means to achieve 35mm. theatrical release for features without having to take on the prohibitive cost of 35mm. color production. A recent film photographed in Kodachrome by a studio located in Bombay, India, was sent to Hollywood for blow-up to 35mm. It featured spectacular ensemble scenes with many actors and animals in trappings of typical Oriental splendor — and it was filmed rapidly and inexpensively with 16mm. equipment.

No one in Hollywood even supposes that 16mm. color blow-up will ever replace 35mm. color production as a standard operating procedure — since there is undeniably some difference in quality, especially to the technician. But the method allows use of portable 16mm. equipment, particularly in outdoor locations where haulage of equipment and complicated set-ups constitute a time and budget problem. And it offers to the independent producer a chance to achieve 35mm. release for features and short subjects in color at a minimum cost.

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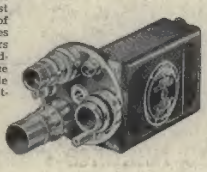

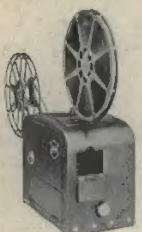

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